Section 14 Contents

Section 14 State Water Plan - Cedar/Beaver Basin

Fisheries and Water-Related Wildlife

14.1 Introduction

This section describes the fisheries and other water-related wildlife in the Cedar/Beaver Basin. It also describes associated problems and presents alternatives to improve this resource. All forms of wildlife depend on water. The multifaceted recreational opportunities provided by wildlife and fishing can be enjoyed by all ages regardless of their situation.

The character and quality of the riparian zone directly impacts the fishery resources in several ways. Riparian vegetation helps determine water temperature which in turn determines fish species, composition, population size and influences the available nutrients. Water is being developed for various uses, impacting the existing regimes and the associated riparian communities.

For these reasons, it is important to understand the relationship of fisheries and wildlife to other water-related resources. This basin has unique ecosystems supporting a diversity of species.

14.2 Setting

The Utah Division of Wildlife Resources has responsibility for the management, protection, propagation and conservation of the state's wildlife resources. Some federal agencies have limited authority for wildlife management on lands they administer.

There are about 2,000 acres of wetlands and 4,000 acres of open water areas in the irrigated cropland areas within the water budget area surveyed by the Division of Water Resources.[17] In addition, there are another 15,000 acres of wetlands/riparian areas and about 1,000 acres of open water in the valley areas outside the irrigated areas of the Cedar/Beaver Basin.[62] Most of the

■ The area wildlife varies from those found in the alpine environments of the Tushar Mountains and Markagunt Plateau to those living in the west desert environs.

Clear Lake Waterfowl Management Area

vegetation is greasewood, rabbitbrush and saltgrass. The only wetland managed specifically for waterfowl is the Clear Lake Waterfowl Refuge (1,050 acres of open water) in the extreme northern part of the basin. There is also the Cedar City Upland State Game Sanctuary.

Determining wildlife habitat needs is recognized as an integral part of basin planning. Fishing, hunting and non-game wildlife activities contribute financially to the economy and need to be considered in water development plans. The Division of Wildlife Resources will assume the lead role in determining potential impacts (positive and negative) to wildlife resources from water development projects. The role of the Division of Wildlife Resources in water planning is to:

1. Assess water development plans and, specifically,
    a. Identify potential benefits to wildlife and their habitats,
    b. Identify potential adverse impacts to wildlife and their habitats,
    c. Recommend a course of action to mitigate project impacts to wildlife and their habitat for the public interest,
    d. Recommend termination if mitigation is not feasible or possible.
2. Provide factual information to decision makers regarding consequences of unmitigated and mitigated impacts to wildlife resources.

14.3 Policy Issues and Recommendations

This section discusses one policy issue. It deals with wetlands and riparian habitat.

14.3.1 Wetlands and Riparian Habitat

Issue - There is a need to protect the wetlands and riparian habitat.

Discussion - There are about 17,000 acres of wetlands and riparian areas in the Cedar/Beaver Basin valleys. Of this total, about 2,000 acres are within the irrigated cropland areas. Clear Lake Waterfowl Management Area is the only managed waterfowl habitat. There are a few other locations which provide resting areas during wetter periods such as Quichapa Lake, Rush Lake and Little Salt Lake. Other areas include farm ponds, reservoirs and other water sources including springs and seeps. These are used primarily as resting areas for migrating birds although some species live year-round in these areas. Wetlands should be protected because of their importance to wildlife and the human populations. The Division of Wildlife Resources should be contacted during project planning to provide input and suggest mitigation practices.

Riparian areas include land directly influenced by sufficient water to sustain growth. Even though the riparian areas account for a minor part of the total land area in the basin, the vast majority of the wildlife species are associated with them at some point in their life cycle. As such, they are important areas to wildlife. Where spring areas have been impacted by wildlife and livestock, rehabilitation should be investigated.

When riparian areas are in good condition, they provide streambank stability, maintain channel contours, regulate water flow and enhance water quality. A good riparian community has abundant and diverse plant life covering most of the soil and showing a spread in age distribution.

Most of the major drainages support good quality riparian habitat throughout most of their lengths. These include the Beaver River and tributaries above Beaver; Little Creek, Red Creek, Parowan Creek, Summit Creek, Coal Creek, Pinto Creek, Spring Creek, Meadow Creek and Little Pine Creek above their canyon mouths; and parts of Shoal Creek and the Beaver River below Minersville. These areas support a multitude of wildlife species. The state should seek primacy status so they can better manage the habitat areas.

Recommendation - The Division of Wildlife Resources should identify wetlands and riparian areas with significant values to aid in their protection.

14.4 Fish, Wildlife and Habitat Problems and Needs

Many people are attracted to live and play in this area because of the unique year-round attractions and facilities. This results in more pressure on the environment as a whole and on the water resources in particular. Most of the canyons are heavily used in the summer for various recreational pursuits. This is particularly true in Beaver Canyon, Red Creek Canyon, Parowan Canyon and Coal Creek Canyon. Many summer homes are also being constructed in the upper watershed areas. All of these and other activities tend to degrade these areas, making them more susceptible to deterioration of the resources.

Conflicts are going to increase in the future due to the finite water resources and an expanding population. There are some groups that advocate preserving the resources from all development and

use while other groups depend on these and other resources to be developed for their livelihood.

Most of the perennial streams in the basin are either captured in storage reservoirs or are diverted, primarily for irrigation, during the growing season. Some stream channels are enlarged by erosion from cloudburst floods. Most of the streams are cool with gravelly and sandy channel bottoms. Many of them support a cold water fishery. The Beaver River with its several storage reservoirs provides the best cold water fisheries in the basin. Reservoirs on the other streams also provide good cold water fish habitat. There is a need to preserve these fisheries.

Riparian areas are important wildlife habitat for many species. Such areas generally offer all four major habitat components: food, water, cover and living space. Where there is adequate water and deep soils, production of plant and animal biomass increases. The contrast with the surrounding desert-like vegetation in the western part of the basin increases the habitat diversity. The linear lines of the riparian areas increase the "edge" between these contrasting vegetation types. With different combinations of humidity, transpiration, vegetation heights, shading and air drainages, various microclimates are produced. Linear riparian zones serve as connectors between habitat types and provide travel lanes and migration routes for such animals as birds, bats, deer and elk.

There are areas where damage is caused by ATV travel, other recreational uses and dewatering of streams. These can cause a reduction in vegetation and associated wildlife values, loss of streambank stability, and siltation. There is a need to provide more ATV trails and restrict areas vulnerable to erosion.

14.5 Alternative Solutions

There is generally always more than one way to carry out an activity that may impact fish and wildlife. Often this can include mitigation. Where possible, it is easier and better to plan development projects to avoid the necessity for mitigation. Where mitigation becomes necessary, it can be made a part of project plans. Water-related mitigation alternatives include maintenance of native fish communities and habitat or replacement of these values with similar facilities in a nearby location.

Habitat can be classified according to value. Four categories of habitat are used in Utah. These are: critical, high-priority, substantial-value and limited-value. Mitigation goals vary with habitat value, wildlife species and project plans.

There are several approaches to mitigation. These are listed below in order of importance.

- Avoiding the impact altogether by not taking a certain action.
- Minimizing impacts by limiting the magnitude of an action or its implementation.
- Rectifying the impact by repairing, rehabilitating or restoring the affected environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environment within the same area.

Whenever reservoir storage projects are constructed, consideration should be given by interested groups and the Utah Division of Wildlife Resources to purchase conservation pools or storage water. This may enhance the fish and wildlife values, provide holdover storage during dry periods and enhance instream flows for sport fisheries. Purchase of conservation pools should also be considered in existing reservoirs. Rehabilitation of disturbed areas should also be a part of projects.

One way to defer use of riparian areas by livestock and wildlife use is by providing water upland from stream banks. Options include upstream ponds, horizontal wells and wind power or solar energy to pump water to upland areas. Another way to defer use of riparian habitat includes fencing the worst areas to control access.

Another technique to assist with acceleration of regrowth on riparian areas is construction of instream structures. These include small impoundments or low head dams, (much like those built by beavers), rock weirs, streambank protection, sediment traps, building up water tables, vegetative plantings and/or anchoring trees or rocks to streambanks to prevent further erosion. ■ ■